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Scientific and Technical Information Center

SEARCH REQUEST FORM

Requester's Full Name: Robert (Pete) Shion Examiner #: 7954 Date: 5/17/06
Art Unit: 1626 Phone Number: 2-0707 Serial Number: 10/800,741
Location (Bldg/Room#): REM (Mailbox #): 5410 Results Format Preferred (circle): PAPER DISK
*****5C18*****

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: Mystic of detection ME
Inventors (please provide full names): Cantam et al

Earliest Priority Date: _____

Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

I search prior of claim 1 by
step (a), (b), and (c) . , also see schem 2

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STAFF USE ONLY

Searcher: Jan

Searcher Phone #: 22504

Searcher Location: _____

Date Searcher Picked Up: 6/6/06

Date Completed: 6/6/06

Searcher Prep & Review Time: 10

Online Time: +50

Type of Search

____ NA Sequence (#)

____ AA Sequence (#)

✓ Structure (#)

____ Bibliographic

____ Litigation

____ Fulltext

____ Other

Vendors and cost where applicable

✓ STN _____ Dialog

____ Questel/Orbit _____ Lexis/Nexis

____ Westlaw _____ WWW/Internet

____ In-house sequence systems

____ Commercial _____ Oligomer _____ Score/Length
____ Interference _____ SPDI _____ Encode/Transl

____ Other (specify) _____



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 190368

TO: Rei-Tsang Shiao
Location: 5a10 / 5c18
Tuesday, June 06, 2006
Art Unit: 1626
Phone: 571-272-0707
Serial Number: 10 / 800741

From: Jan Delaval
Location: Biotech-Chem Library
Remsen 1a51
Phone: 571-272-2504

jan.delaval@uspto.gov

Search Notes

STIC SEARCH RESULTS FEEDBACK FORM

Biotech-Chem Library

Questions about the scope or the results of the search? Contact *the searcher or contact*:

Mary Hale, Information Branch Supervisor
571-272-2507 Remsen E01 D86

Voluntary Results Feedback Form

➤ I am an examiner in Workgroup: Example: 1610

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/Biotech-Chem Library Remsen Bldg.

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 13:08:40 ON 06 JUN 2006

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FILE COVERS 1907 - 6 Jun 2006 VOL 144 ISS 24

FILE LAST UPDATED: 5 Jun 2006 (20060605/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 163 all hitstr tot

✓ L63 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1004405 HCAPLUS

DN 143:286217

ED Entered STN: 16 Sep 2005

TI Preparation of atorvastatin

IN Guntoori, Bhaskar Reddy; Che, Daqing; Wang,

Fan; Zhao, Yajun; Murthy, K. S. Keshava;

Horne, Stephen E.

PA Apotex Pharmachem Inc., Can.

SO U.S. Pat. Appl. Publ., 7 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM C07D0027-36

INCL 548537000

CC 26-6 (Biomolecules and Their Synthetic Analogs)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005203302	A1	20050915	US 2004-800741	20040316 <--
	CA 2460935	AA	20050915	CA 2004-2460935	20040315 <--
	WO 2005087723	A1	20050922	WO 2005-CA368	20050311 <--
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI CA 2004-2460935 A 20040315 <--

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2005203302	ICM	C07D0027-36
	INCL	548537000
	IPCI	C07D0027-36 [ICM,7]
	IPCR	C07D0207-00 [I,C*]; C07D0207-34 [I,A]; C07D0207-416 [I,A]
CA 2460935	NCL	548/537.000
	IPCI	C07D0207-34 [ICM,7]; C07D0207-00 [ICM,7,C*]
	IPCR	C07D0207-00 [I,C*]; C07D0207-34 [I,A]; C07D0207-416 [I,A]
WO 2005087723	IPCI	C07D0207-416 [ICM,7]; C07D0207-34 [ICS,7]; C07D0207-00 [ICS,7,C*]
	IPCR	C07D0207-00 [I,C*]; C07D0207-34 [I,A]; C07D0207-416 [I,A]

OS CASREACT 143:286217

AB (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]-5-hydroxy-3-oxo-1-heptanoic acid, tert-butylester by a process using the following steps (a) reduction of 5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]-3-oxo-1-pentanoic acid, (R)-2-hydroxy-1,2,2-triphenylethyl ester, (b) hydrolysis of (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]-3-hydroxy-1-pentanoic acid, (R)-2-hydroxy-1,2,2-triphenylethyl ester using an alkali base in a solvent to form the acid (c) alkylation of the acid forming (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]-5-hydroxy-3-oxo-1-heptanoic acid, tert-butylester.

ST atorvastatin synthesis

IT Synthons

(preparation of atorvastatin)

IT 40052-13-9, Mono-tert-butyl malonate

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of atorvastatin)

IT 134394-97-1P 864408-75-3P 864408-76-4P

864408-77-5P 864408-78-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of atorvastatin)

IT 95061-46-4P 134523-00-5P, Atorvastatin

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of atorvastatin)

IT 864408-75-3P 864408-76-4P 864408-77-5P

864408-78-6P

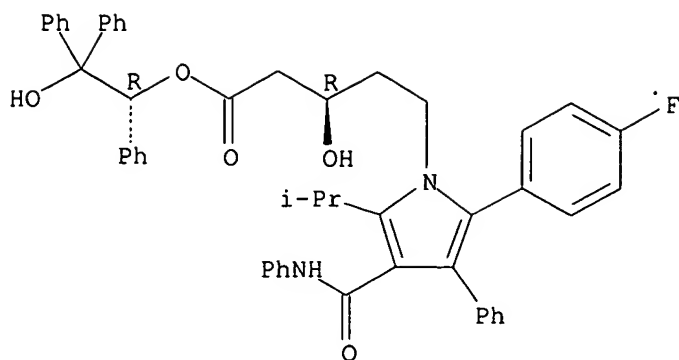
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of atorvastatin)

RN 864408-75-3' HCAPLUS

CN 1H-Pyrrole-1-pentanoic acid, 2-(4-fluorophenyl)- β -hydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-, (1R)-2-hydroxy-1,2,2-triphenylethyl ester, (β R)- (9CI) (CA INDEX NAME)

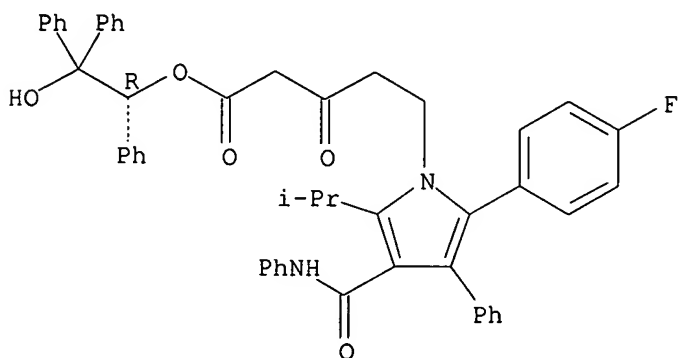
Absolute stereochemistry.



RN 864408-76-4 HCAPLUS

CN 1H-Pyrrole-1-pentanoic acid, 2-(4-fluorophenyl)-5-(1-methylethyl)- β -oxo-3-phenyl-4-[(phenylamino)carbonyl]-, (1R)-2-hydroxy-1,2,2-triphenylethyl ester (9CI) (CA INDEX NAME)

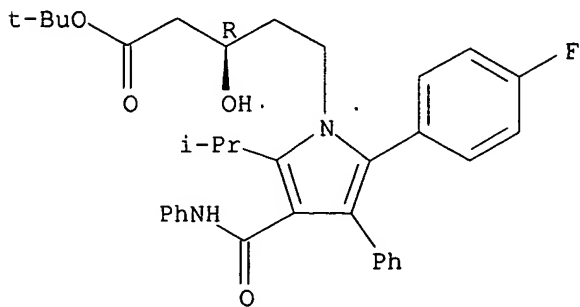
Absolute stereochemistry.



RN 864408-77-5 HCAPLUS

CN 1H-Pyrrole-1-pentanoic acid, 2-(4-fluorophenyl)- β -hydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-, 1,1-dimethylethyl ester, (1R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

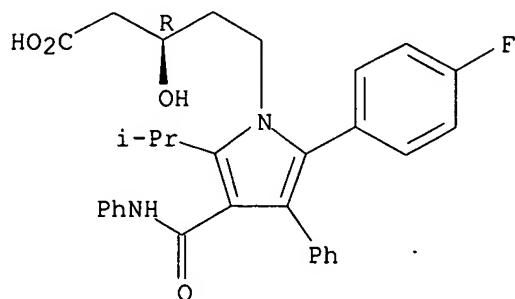


RN 864408-78-6 HCAPLUS

CN 1H-Pyrrole-1-pentanoic acid, 2-(4-fluorophenyl)- β -hydroxy-5-(1-

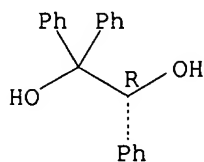
methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-, (β R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



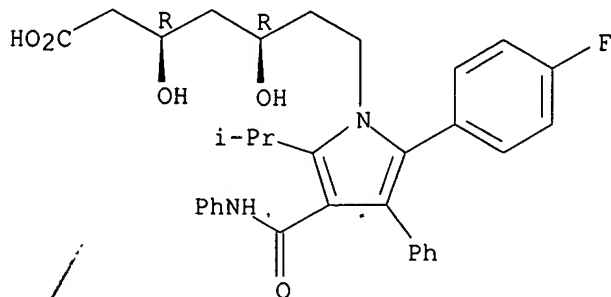
IT 95061-46-4P 134523-00-5P, Atorvastatin
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of atorvastatin)
 RN 95061-46-4 HCAPLUS
 CN 1,2-Ethandiol, 1,1,2-triphenyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 134523-00-5 HCAPLUS
 CN 1H-Pyrrole-1-heptanoic acid, 2-(4-fluorophenyl)- β , δ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-, (β R, δ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L63 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:672924 HCAPLUS
 DN 143:153224
 ED Entered STN: 29 Jul 2005
 TI Process for the preparation of amorphous atorvastatin calcium

jan delaval - 6 june 2006

IN Che, Daqing; Kinsman, Aaron C.; Guntoori, Bhaskar Reddy
 ; Murthy, K. S. Keshava
 PA Apotex Pharmachem Inc., Can.
 SO U.S. Pat. Appl. Publ., 5 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 IC ICM C07D0207-333
 INCL 548537000
 CC 26-6 (Biomolecules and Their Synthetic Analogs)
 Section cross-reference(s): 63, 75
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005165242	A1	20050728	US 2004-771383	20040205
	CA 2456430	AA	20050728	CA 2004-2456430	20040128
	WO 2005073187	A1	20050811	WO 2004-CA2161	20041220
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				
	CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,				
	GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,				
	LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,				
	NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,				
	TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW:				
	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,				
	AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,				
	EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,				
	RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,				
	MR, NE, SN, TD, TG				
PRAI	CA 2004-2456430	A	20040128		
	US 2004-771383	A	20040205		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2005165242	ICM	C07D0207-333
	INCL	548537000
	IPCI	C07D0207-333 [ICM,7]; C07D0207-00 [ICM,7,C*]
	IPCR	A61K0031-40 [I,A]; A61K0031-40 [I,C*]; A61P0003-00 [I,C*]; A61P0003-06 [I,A]; C07D0207-00 [I,C*]; C07D0207-34 [I,A]
	NCL	548/537.000
CA 2456430	IPCI	C07D0207-34 [ICM,7]; C07D0207-00 [ICM,7,C*]; A61P0003-06 [ICS,7]; A61P0003-00 [ICS,7,C*]; A61K0031-40 [ICS,7]
WO 2005073187	IPCI	C07D0207-34 [ICM,7]; C07D0207-00 [ICM,7,C*]
	IPCR	C07D0207-00 [I,C*]; C07D0207-34 [I,A]

AB A process for the preparation of amorphous **atorvastatin** calcium comprises: (a) hydrolysis of the precursor lactone using sodium hydroxide to form **atorvastatin** sodium salt solution; (b) addition of the **atorvastatin** sodium salt solution to a calcium chloride or calcium acetate solution in the absence or presence of seeds of amorphous **atorvastatin** calcium; and (c) isolation of the resultant amorphous **atorvastatin** calcium salt by filtration and drying.

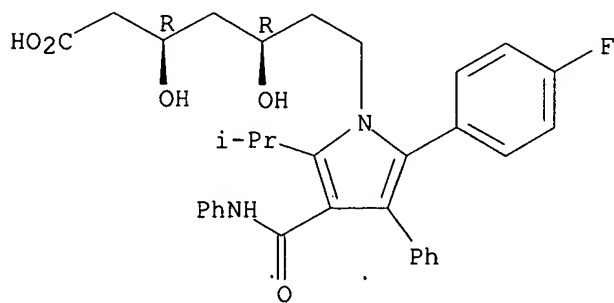
ST **atorvastatin** calcium amorphous prepn; anticholesteremic **atorvastatin** calcium amorphous prepn

IT Anticholesteremic agents
 (atorvastatin calcium; process for the preparation of amorphous **atorvastatin** calcium)

IT Hydrolysis
 (base; in a process for the preparation of amorphous **atorvastatin** calcium)

- IT Drying
Filtration
(in a process for the preparation of amorphous **atorvastatin** calcium)
- IT Polymorphism (crystal)
(process for the preparation of amorphous **atorvastatin** calcium)
- IT Hypercholesterolemia
(process for the preparation of amorphous **atorvastatin** calcium for the treatment of)
- IT **134523-01-6P, Atorvastatin** sodium
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(in a process for the preparation of amorphous **atorvastatin** calcium)
- IT **67-56-1, Methanol**, uses **7732-18-5, Water**, uses
RL: NUU (Other use, unclassified); USES (Uses)
(in a process for the preparation of amorphous **atorvastatin** calcium)
- IT **62-54-4, Calcium acetate** 10043-52-4, **Calcium chloride**, reactions 125995-03-1, **Atorvastatin** lactone
RL: RCT (Reactant); RACT (Reactant or reagent)
(in a process for the preparation of amorphous **atorvastatin** calcium)
- IT **134523-03-8P, Atorvastatin** calcium
RL: IMF (Industrial manufacture); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(process for the preparation of amorphous **atorvastatin** calcium)
- IT **134523-01-6P, Atorvastatin** sodium
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(in a process for the preparation of amorphous **atorvastatin** calcium)
- RN 134523-01-6 HCAPLUS
- CN 1H-Pyrrole-1-heptanoic acid, 2-(4-fluorophenyl)- β , δ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-, monosodium salt, (BR, δ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● Na

- IT **67-56-1, Methanol**, uses **7732-18-5, Water**, uses
RL: NUU (Other use, unclassified); USES (Uses)
(in a process for the preparation of amorphous **atorvastatin** calcium)

RN 67-56-1 HCAPLUS
CN Methanol (8CI, 9CI) (CA INDEX NAME)

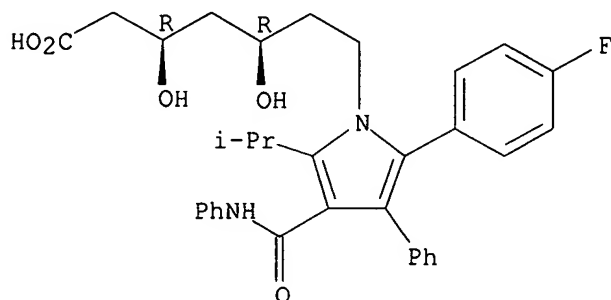
H₃C-OH

RN 7732-18-5 HCAPLUS
CN Water (8CI, 9CI) (CA INDEX NAME)

H₂O

IT 134523-03-8P, **Atorvastatin** calcium
RL: IMF (Industrial manufacture); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(process for the preparation of amorphous **atorvastatin** calcium)
RN 134523-03-8 HCAPLUS
CN 1H-Pyrrole-1-heptanoic acid, 2-(4-fluorophenyl)- β , δ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-, calcium salt (2:1), (β R, δ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L63 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:138076 HCAPLUS
DN 130:267298
ED Entered STN: 04 Mar 1999
TI **Atorvastatin**, an HMG-CoA reductase inhibitor and effective lipid-regulating. Part II. Synthesis of side chain-labeled [¹⁴C] **atorvastatin**
AU Lee, Helen T.; Woo, Peter W. K.
CS Division of Warner-Lambert Company, Parke-Davis Pharmaceutical Research, Ann Arbor, MI, 48105, USA
SO Journal of Labelled Compounds & Radiopharmaceuticals (1999), 42(2), 129-133
CODEN: JLCRD4; ISSN: 0362-4803
PB John Wiley & Sons Ltd.
DT Journal
LA English
CC 27-10 (Heterocyclic Compounds (One Hetero Atom))

AB [14C]Atorvastatin was synthesized in a ten-step sequence with an overall yield of 5.7%. The label was introduced as sodium [1-14C]acetate, which was converted via the acid chloride to the (S)-2-hydroxy-1,2,2-triphenylethyl ester. Chiral condensation of the ester with an aldehyde gave a chiral ester intermediate with a yield of about 70%. Following transesterification of the ester intermediate to a Me ester and condensation with tert-Bu lithioacetate to give a (R)- β -ketoester, a second chiral center was generated by reduction of the hydroxy ketone, giving a (R,R)-dihydroxy ester, which was then converted via the acid to a lactone. The desired pure diastereomer, obtained from the mother liquor during crystallization, was then converted to the corresponding calcium salt (2:1)

(atorvastatin).

ST atorvastatin carbon 14 labeled prepn

IT 88-95-9, 1,2-Benzenedicarbonyl dichloride 540-88-5, tert-Butyl acetate 993-04-4 108998-83-0 110862-46-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of side chain-labeled [14C]atorvastatin)

IT 676-77-7P, Acetyl-1-14C chloride 222406-66-8P 222406-69-1P 222406-71-5P 222406-73-7P 222406-75-9P 222406-80-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of side chain-labeled [14C]atorvastatin)

IT 222406-78-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of side chain-labeled [14C]atorvastatin)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Bertolini, S; Atherosclerosis 1997, V130, P191 HCAPLUS

(2) Braun, M; Tet Letters 1984, V25, P5031 HCAPLUS

(3) Dart, A; Am J Cardiol 1997, V80, P39 HCAPLUS

(4) Marais, A; Arteriosclerosis Thrombosis and Vascular Biology 1997, V17, P1527 HCAPLUS

(5) Michniewicz, B; Sixth North American ISSX Meeting Abstract 93 1994

(6) Roth, B; US 4681893 1987 HCAPLUS

(7) Roth, B; J Med Chem 1991, V34, P357 HCAPLUS

(8) Woo, P; preceding paper

IT 108998-83-0

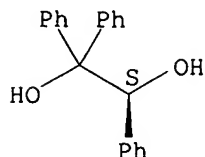
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of side chain-labeled [14C]atorvastatin)

RN 108998-83-0 HCAPLUS

CN 1,2-Ethanediol, 1,1,2-triphenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 222406-69-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

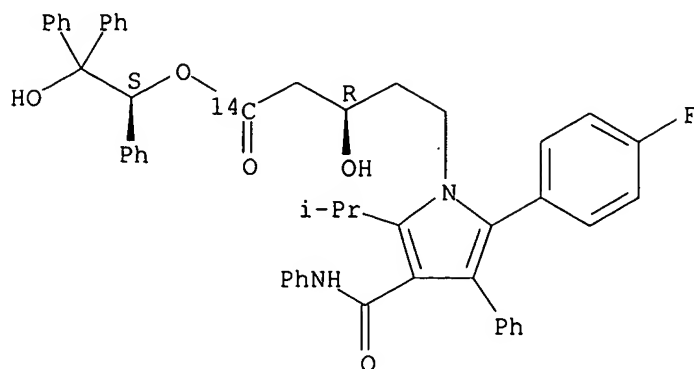
(preparation of side chain-labeled [14C]atorvastatin)

RN 222406-69-1 HCAPLUS

CN 1H-Pyrrole-1-pentanoic-carboxy-14C acid, 2-(4-fluorophenyl)- β -hydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-,

(1S)-2-hydroxy-1,2,2-triphenylethyl ester, (βR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



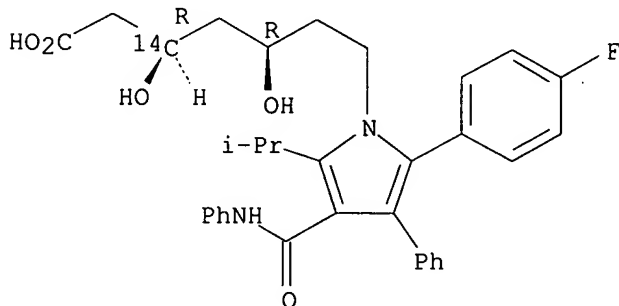
IT 222406-78-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of side chain-labeled [14C]atorvastatin)

RN 222406-78-2 HCAPLUS

CN 1H-Pyrrole-1-heptanoic-β-14C acid, 2-(4-fluorophenyl)-β,δ-dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-, calcium salt (2:1), (βR,δR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 1/2 Ca

✓ L63 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1991:429107 HCAPLUS

DN 115:29107

ED Entered STN: 27 Jul 1991

TI Preparation of anticholesteremic (R-(R*R*)) -2-(4-fluorophenyl)-β,δ-dihydroxy-5-(1-methylethyl-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrolyl-1-heptanoic acid, its lactone form and salts thereof

IN Roth, Bruce David

PA Warner-Lambert Co., USA

SO Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DT Patent

jan delaval - 6 june 2006

LA English
 IC ICM C07D0207-327
 ICS C07D0405-00; A61K0031-40
 CC 27-10 (Heterocyclic Compounds (One Hetero Atom))
 Section cross-reference(s): 1

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 409281	A1	19910123	EP 1990-113986	19900720
	EP 409281	B1	20011031		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	FI 94339	B	19950515	FI 1990-3614	19900718
	FI 94339	C	19950825		
	CA 2021546	AA	19910122	CA 1990-2021546	19900719
	CA 2021546	C	19970429		
	NO 9003251	A	19910122	NO 1990-3251	19900720
	NO 174709	B	19940314		
	NO 174709	C	19940622		
	JP 03058967	A2	19910314	JP 1990-190935	19900720
	JP 3506336	B2	20040315		
	ZA 9005742	A	19920325	ZA 1990-5742	19900720
	KR 167101	B1	19990115	KR 1990-11032	19900720
	EP 1061073	A1	20001220	EP 2000-115656	19900720
	EP 1061073	B1	20040630		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	AT 207896	E	20011115	AT 1990-113986	19900720
	ES 2167306	T3	20020516	ES 1990-113986	19900720
	JP 2002234871	A2	20020823	JP 2001-399022	19900720
	JP 2003201236	A2	20030718	JP 2002-365972	19900720
	AT 270274	E	20040715	AT 2000-115656	19900720
	ES 2153332	T3	20050301	ES 2000-115656	19900720
	AU 9059724	A1	19910124	AU 1990-59724	19900723
	AU 628198	B2	19920910		
	US 5273995	A	19931228	US 1991-660976	19910226
	NO 9302075	A	19910122	NO 1993-2075	19930607
	NO 176096	B	19941024		
	NO 176096	C	19950201		
PRAI	US 1989-384187	A	19890721		
	EP 1990-113986	A3	19900720		
	JP 1990-190935	A3	19900720		
	NO 1990-3251	A1	19900720		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 409281	ICM	C07D0207-327
	ICS	C07D0405-00; A61K0031-40
	IPCI	C07D0207-327 [ICM,5]; C07D0207-00 [ICM,5,C*]; C07D0405-00 [ICS,5]; A61K0031-40 [ICS,5]
	IPCR	C07D0207-00 [I,C*]; C07D0207-34 [I,A]; C07D0405-00 [I,C*]; C07D0405-06 [I,A]
	ECLA	C07D207/34; C07D405/06+309+207
FI 94339	IPCI	C07D0207-34 [ICM,6]; C07D0207-00 [ICM,6,C*]
CA 2021546	IPCI	C07D0207-34 [ICM,5]; C07D0207-00 [ICM,5,C*]; C07D0405-06 [ICS,5]; C07D0405-00 [ICS,5,C*]; A61K0031-40 [ICS,5]
	IPCR	C07D0207-00 [I,C*]; C07D0207-34 [I,A]; C07D0405-00 [I,C*]; C07D0405-06 [I,A]
NO 9003251	IPCI	C07D0207-34 [ICM,5]; C07D0207-00 [ICM,5,C*]
	IPCR	C07D0207-00 [I,C*]; C07D0207-34 [I,A]; C07D0405-00 [I,C*]; C07D0405-06 [I,A]

JP 03058967	IPCI	C07D0207-34 [ICM,5]; C07D0207-00 [ICM,5,C*]; A61K0031-40 [ICS,5]; C07D0405-06 [ICS,5]; C07D0405-00 [ICS,5,C*]
ZA 9005742	IPCI	A61K [ICM,5]; C07D [ICS,5]
	IPCR	C07D0207-00 [I,C*]; C07D0207-34 [I,A]; C07D0405-00 [I,C*]; C07D0405-06 [I,A]
KR 167101	IPCI	C07D0207-327 [ICM,7]; C07D0207-00 [ICM,7,C*]
	IPCR	C07D0207-00 [I,C*]; C07D0207-34 [I,A]; C07D0405-00 [I,C*]; C07D0405-06 [I,A]
EP 1061073	IPCI	C07D0207-34 [ICM,6]; C07D0207-00 [ICM,6,C*]; C07D0405-06 [ICS,6]; C07D0405-00 [ICS,6,C*]; A61K0031-40 [ICS,6]
	ECLA	C07D0207/34; C07D0405/06+309+207
AT 207896	IPCI	C07D0207-327 [ICM,7]; C07D0207-00 [ICM,7,C*]; C07D0405-00 [ICS,7]; A61K0031-40 [ICS,7]
ES 2167306	IPCI	C07D0207-327 [ICM,7]; C07D0207-00 [ICM,7,C*]; C07D0405-00 [ICS,7]; A61K0031-40 [ICS,7]
	IPCR	C07D0207-00 [I,C*]; C07D0207-34 [I,A]; C07D0405-00 [I,C*]; C07D0405-06 [I,A]
JP 2002234871	IPCI	C07D0207-34 [ICM,7]; C07D0207-00 [ICM,7,C*]; A61K0031-40 [ICS,7]; A61P0003-06 [ICS,7]; A61P0003-00 [ICS,7,C*]; A61P0043-00 [ICS,7]; C07D0405-06 [ICS,7]; C07D0405-00 [ICS,7,C*]; C07M0007-00 [ICS,7]
JP 2003201236	IPCI	A61K0031-40 [ICM,7]; A61P0003-06 [ICS,7]; A61P0003-00 [ICS,7,C*]; C07D0207-416 [ICS,7]; C07D0207-00 [ICS,7,C*]
AT 270274	IPCI	C07D0207-34 [ICM,7]; C07D0207-00 [ICM,7,C*]; C07D0405-06 [ICS,7]; C07D0405-00 [ICS,7,C*]; A61K0031-40 [ICS,7]
ES 2153332	IPCI	C07D0207-34 [ICM,7]; C07D0207-00 [ICM,7,C*]; C07D0405-06 [ICS,7]; C07D0405-00 [ICS,7,C*]; A61K0031-40 [ICS,7]
AU 9059724	IPCI	C07D0207-34 [ICM,5]; C07D0207-00 [ICM,5,C*]; C07D0405-06 [ICS,5]; C07D0405-00 [ICS,5,C*]; A61K0031-40 [ICS,5]
	IPCR	C07D0207-00 [I,C*]; C07D0207-34 [I,A]; C07D0405-00 [I,C*]; C07D0405-06 [I,A]
US 5273995	IPCI	A61K0031-40 [ICM,5]; C07D0405-06 [ICS,5]; C07D0405-00 [ICS,5,C*]
	IPCR	C07D0207-00 [I,C*]; C07D0207-34 [I,A]; C07D0405-00 [I,C*]; C07D0405-06 [I,A]
	NCL	514/422.000; 514/423.000; 548/517.000; 548/537.000
NO 9302075	IPCI	C07D0207-34 [ICM,5]; C07D0207-00 [ICM,5,C*]
	IPCR	C07D [I,S]; C07D0207-00 [I,C*]; C07D0207-34 [I,A]

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

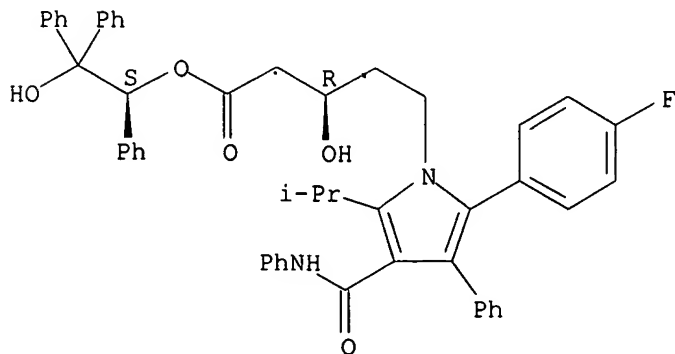
AB Title compound, lactone derivative I, and pharmaceutically acceptable salts thereof were prepared Treatment of hydroxyketoester II (preparation given) with

B(Et)₃, NaBH₄ in MeOH, H₂O₂, and NaOH gave the corresponding Na dihydroxyheptanoate derivative which was converted to the acid. This acid was taken up in toluene and refluxed using a Dean-Stark trap for 20 min to give I. II exhibited IC₅₀ of 0.0044 µM/L against cholesterol biosynthesis.

ST pyrrolyldihydroxyheptanoate prepn anticholesteremic

- IT Anticholesteremics and Hypolipemics
(pyrrolyldihydroxyheptanoates)
- IT 57-88-5, Cholest-5-en-3-ol (3 β)-, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors of biosynthesis of, pyrrole derivs. as)
- IT 134394-96-0P 134394-97-1P 134394-98-2P 134395-00-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and reaction of, in preparation of anticholesteremic)
- IT 7440-66-6DP, Zinc, **Atorvastatin** complex 125995-03-1P
134523-00-5DP, **Atorvastatin**, magnesium and zinc
complexes 134523-00-5P 134523-01-6P
134523-02-7P 134523-03-8P 134523-04-9P 134523-07-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as anticholesteremic)
- IT 7439-95-4DP, Magnesium, **Atorvastatin** complex
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
(pyrrolyldihydroxyheptanoates)
- IT 540-88-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of anticholesteremic)
- IT 95061-51-1 110862-46-9 134394-95-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of anticholesteremic agent)
- IT 3886-69-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(resolving agent, for pyrrolyldihydroxyheptanoate anticholesteremic
agent)
- IT 6284-40-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(salt formation by, of pyrrolyldihydroxyheptanoic acid derivative)
- IT 134394-96-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and reaction of, in preparation of anticholesteremic)
- RN 134394-96-0 HCAPLUS
- CN 1H-Pyrrole-1-pentanoic acid, 2-(4-fluorophenyl)- β -hydroxy-5-(1-
methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-, 2-hydroxy-1,2,2-
triphenylethyl ester, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



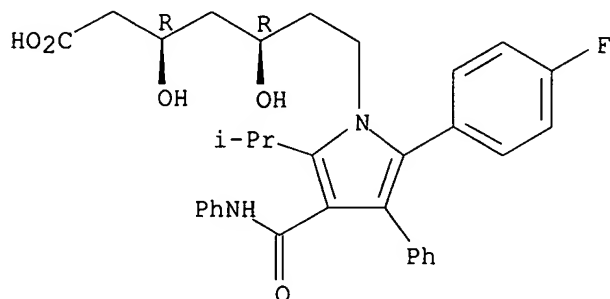
IT 134523-00-5DP, Atorvastatin, magnesium and zinc complexes 134523-00-5P 134523-01-6P 134523-02-7P 134523-03-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as anticholesteremic)

RN 134523-00-5 HCAPLUS

CN 1H-Pyrrole-1-heptanoic acid, 2-(4-fluorophenyl)- β,δ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-, ($\beta R,\delta R$)-(9CI) (CA INDEX NAME)

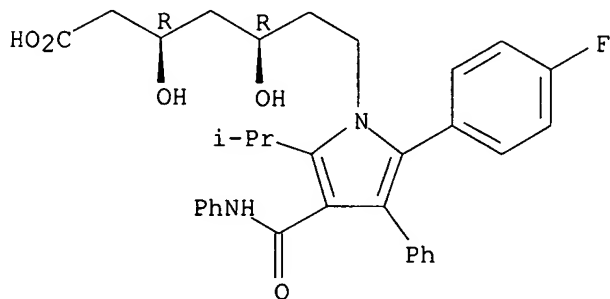
Absolute stereochemistry.



RN 134523-00-5 HCAPLUS

CN 1H-Pyrrole-1-heptanoic acid, 2-(4-fluorophenyl)- β,δ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-, ($\beta R,\delta R$)-(9CI) (CA INDEX NAME)

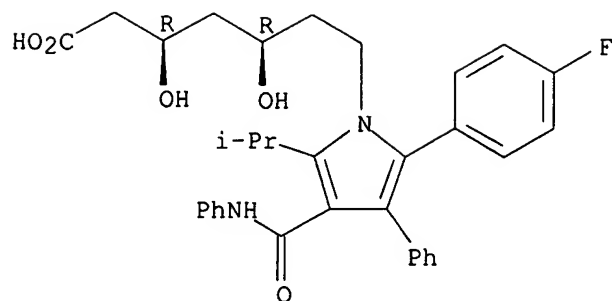
Absolute stereochemistry.



RN 134523-01-6 HCAPLUS

CN 1H-Pyrrole-1-heptanoic acid, 2-(4-fluorophenyl)- β,δ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-, monosodium salt, ($\beta R,\delta R$)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

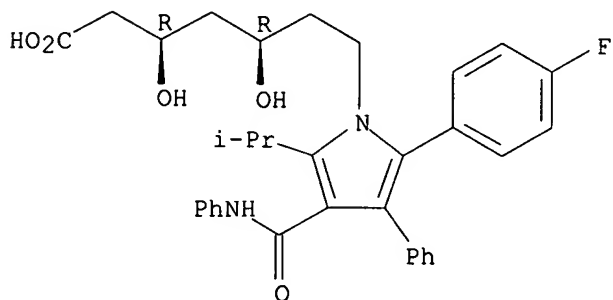


● Na

RN 134523-02-7 HCAPLUS

CN 1H-Pyrrole-1-heptanoic acid, 2-(4-fluorophenyl)-β,δ-dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-, monopotassium salt, (βR,δR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

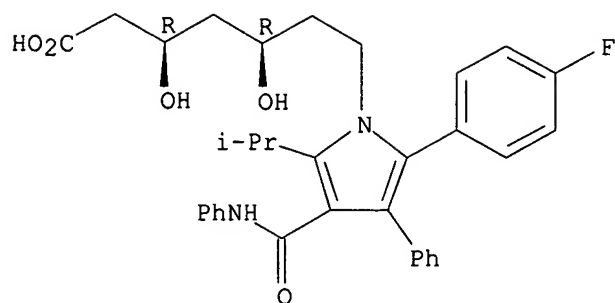


● K

RN 134523-03-8 HCAPLUS

CN 1H-Pyrrole-1-heptanoic acid, 2-(4-fluorophenyl)-β,δ-dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-, calcium salt (2:1), (βR,δR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 1/2 Ca

=> => d his

(FILE 'HOME' ENTERED AT 12:42:23 ON 06 JUN 2006)
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 12:42:55 ON 06 JUN 2006

L1	1	S	US20050203302/PN OR (US2004-800741# OR CA2004-2460935)/AP, PRN
		E	APOTEX/PA, CS
L2	55	S	E3-E20
		E	APOTE/PA, CS
		E	BRANTFORD/PA, CS
L3	65	S	E3-E11
		E	GUNTOORI/AU
L4	13	S	E4, E5
		E	BHASKAR/AU
L5	7	S	E39
L6	11	S	E97
		E	REDDY/AU
		E	REDDY B/AU
L7	9	S	E3
L8	8	S	E21-E23
		E	REDDY BHASKAR/AU
L9	1	S	E3
		E	REDDY G/AU
L10	117	S	E3, E5, E6, E12
L11	2	S	E13
		E	REDDY GUN/AU
L12	2	S	E10
		E	CHE/AU
		E	CHE D/AU
L13	37	S	E3-E9, E16
		E	CHE N/AU
L14	2	S	E7
		E	DA/AU
		E	DAQING/AU
		E	WANG/AU
L15	12	S	E3
		E	WANG F/AU
L16	3288	S	E3-E29 OR WANG FAN?/AU
		E	ZHAO/AU

jan delaval - 6 june 2006

L17 1669 S E ZHAO Y/AU
 S E3-E25,E34
 E ZHAO YAJUN/AU
 L18 20 S E3
 E ZHAO N/AU
 E YAJUN/AU
 E WANG N/AU
 E WANG NAME/AU
 L19 70 S E4
 E MURTHY/AU
 E MURTHY K/AU
 L20 16 S E3
 L21 129 S E41,E43-E45
 L22 20 S E98-E100
 E HORNE S/AU
 L23 29 S E3,E6
 L24 21 S E20
 L25 13 S E22,E23
 L26 1 S E25
 SEL RN L1

FILE 'REGISTRY' ENTERED AT 12:50:20 ON 06 JUN 2006

L27 8 S E1-E8
 E C51H45FN2O5/MF
 L28 1 S E3
 E C51H47FN2O5/MF
 L29 3 S E3 AND 46.150.18/RID AND NC4/ES AND 7/NR
 E C35H39FN2O4/MF
 L30 1 S E3 AND 46.150.18/RID AND NC4/ES AND 4/NR
 L31 1 S L27 AND C7H12O4
 E C31H31FN2O4/MF
 L32 2 S E3 AND 46.150.18/RID AND NC4/ES AND 4/NR
 L33 1 S L32 NOT FORMYL
 E C20H18O2/MF
 L34 1 S E3 AND L27
 L35 5 S E3 AND 1 2 ETHANEDIOL AND TRIPHENYL
 L36 5 S L34,L35
 E C33H35FN2O5/MF
 L37 21 S E3 AND 46.150.18/RID AND NC4/ES AND 4/NR
 L38 2 S L37 AND ATORVASTATIN
 L39 19 S L37 NOT L38
 SEL RN 1-3 14-16 18 19
 L40 11 S L39 NOT E1-E8
 L41 13 S L38,L40
 SEL RN
 L42 63 S E9-E21/CRN
 L43 46 S L42 NOT (MXS OR PMS OR IDS)/CI
 L44 25 S L43 NOT COMPD
 L45 20 S L44 NOT (LYSINE OR ARGININE OR ORNITHINE)
 L46 33 S L41,L45

FILE 'HCAPLUS' ENTERED AT 13:03:40 ON 06 JUN 2006

L47 1 S L28
 L48 4 S L29
 L49 1 S L33
 L50 1 S L30
 L51 2566 S L46 OR ATORVASTATIN?
 L52 3 S L47-L50 AND L51
 L53 2 S L36 AND L52
 L54 3 S L52,L53

L55 1 S L47-L50 NOT L54
L56 2 S L1-L26 AND L51
L57 4 S L56,L54

FILE 'REGISTRY' ENTERED AT 13:06:56 ON 06 JUN 2006

L58 3 S (LITHIUM HYDROXIDE OR SODIUM HYDROXIDE OR POTASSIUM HYDROXIDE
L59 1 S METHANOL/CN
L60 1 S WATER/CN
L61 1 S MAGNESIUM ETHOXIDE/CN

FILE 'HCAPLUS' ENTERED AT 13:08:07 ON 06 JUN 2006

L62 1 S L58-L61 AND L57
L63 4 S L57,L62

FILE 'HCAPLUS' ENTERED AT 13:08:40 ON 06 JUN 2006

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